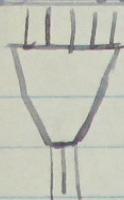
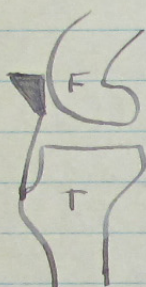


lateral condyle bears more weight. rounded.
 medial moves further. long & thin.
 outer - stouter inner - thinner.

Patella - fits front of condyles.



- smooth behind ∇ in front.
- upper border receives pull of quadriceps muscle.
- apex has a ligament to tuberosity of tibia.



- bone developed in the tendon, to prevent tendon rubbing on hard bone.
- improves L of pull - holds tendon away from bone.

Leg - anatomically between knee & ankle.

- corresponds to forearm.
- 2 bones - tibia & fibula.

Tibia - medial side.

- use - receives all weight at the knee & all weight at the ankle.

- upper end has 2 condyles.
 medial & lateral.

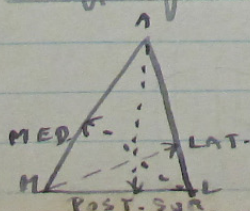
- articulate with same condyles as femur.

- between condyles intercondylar eminence fits intercondylar notch.

- upper end has tuberosity in front for patellar ligament.

- a facet for upper end of fibula on lateral condyle towards the back.

Shift of tibia triangular.



Borders - anterior.

- lateral

- medial

long bones usually Δ on section with
3 borders + 3 surfaces.

Anterior border - sharp
- boned by muscle on lateral ^{surface}
- subcutaneous surface.
- palpable.

lateral border - sharp for inter-ossous membrane

Lower end - small end tibial

below - smooth to fit talus.

- medial side - a projection pointing
down to fit side of talus called
medial malleolus (little hammer)

(lateral side - smooth area for fibula
can be felt ^{medially} laterally) + in front
behind is grooved for tendons.
+ below pointed for ankle ligament.

Tibia - medial side, alone enters knee-joint.
strong, heavy, long bone.

Fibula - bears no weight (joined to tibia laterally)
- lateral of two leg bones.

Protrusion - upper end fits back of lateral condyle.
- lower end (important) lateral malleolus.
- fits lower end of tibia making a
lateral socket for ankle joint.
- lateral malleolus subcutaneous.
- tip distal to medial malleolus +
its back grooved by tendons.

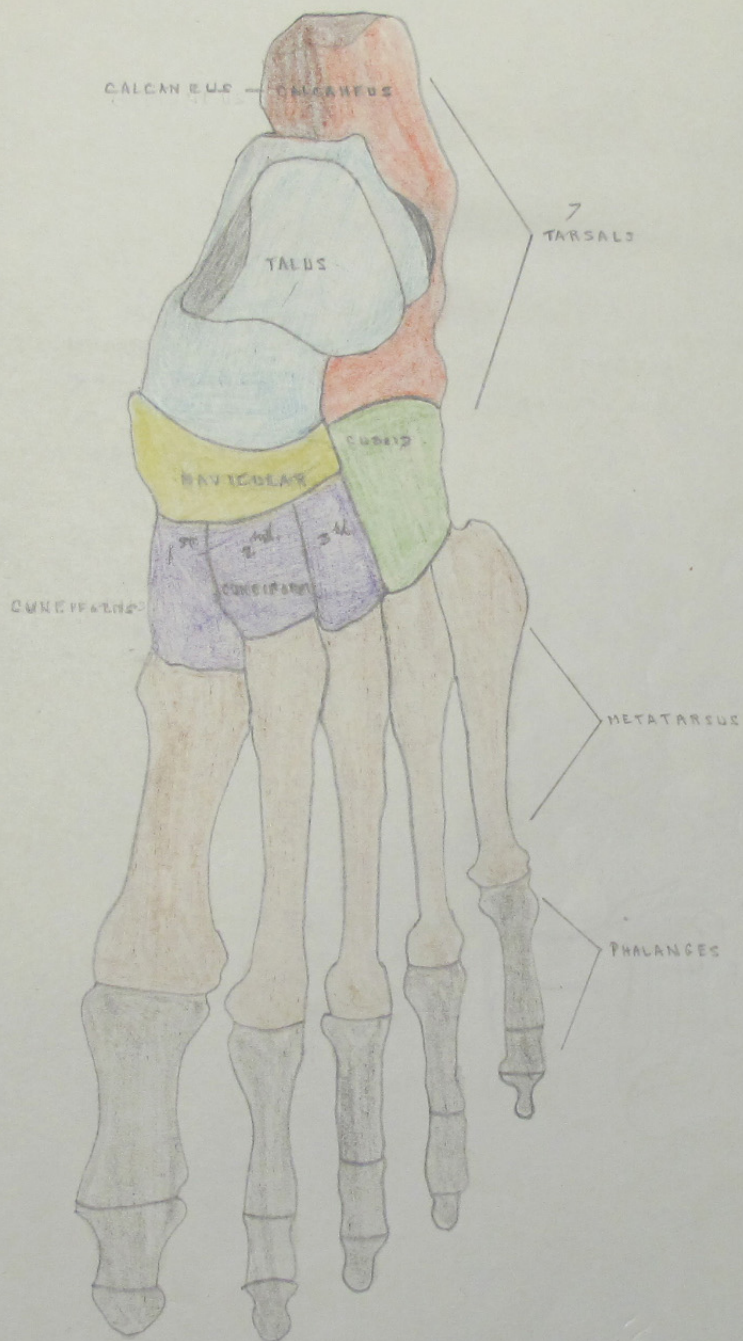
shaft - long + slender.
- molded by muscles attached to it.
- interosseous membrane makes a
shaft ridge.

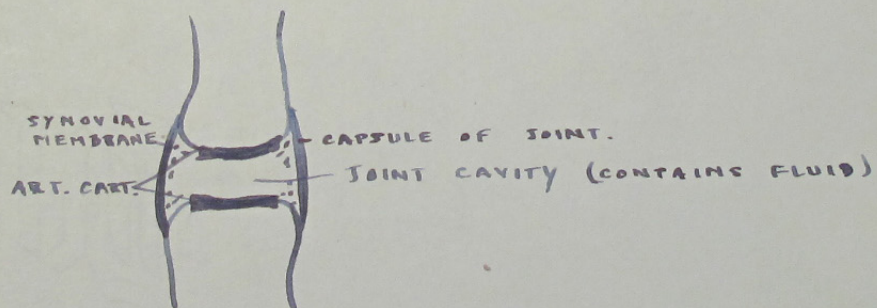
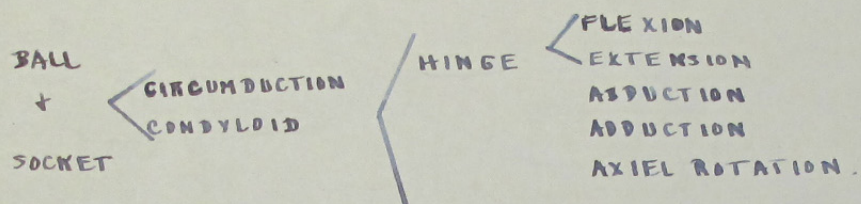
use - muscle attachment.

- a socket for ankle

- a pulley for tendons behind lower end. (peronei)

DORSAL ASPECT OF BONES OF LEFT FOOT





Foot - designed like the hand.

- ankle or tarsal bones.

- metatarsals.

- phalanges.

use - designed for walking.

Tarsals - 7 of them.

- divided into 2 groups.

1) posterior (2)

talus - fits ankle.

calcaneum - heel bone.

talus - smooth on top for tibia

at sides fits malleoli.

calcaneum - upper surface supports talus.

- lower surface is the heel.

- back projects as a lever for calf muscles.

2) anterior - (5)

navicular - fits on round front of talus.

- in front 3 wedges.

3 cuneiforms

cuboid - like a cube.

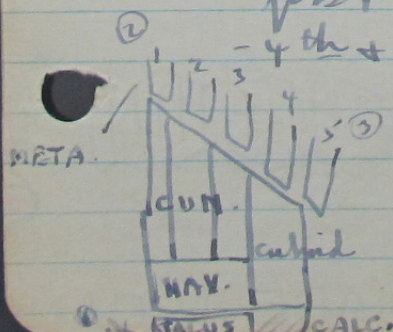
All act as a unit, allow

twisting movements for inversion, or turning soles inwardly + eversion, outwardly. Movement is between posterior + anterior tarsals.

Metatarsals - long bones no. from medial side.

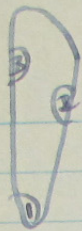
- first 3 lie in front of cuneiforms.

- 4th + 5th - in front of cuboid.



Phalanges - shorter

Foot a tripod on standing
3 wt-bearing points.



- 1) calcaneum at heel.
- 2) ball of great toe - head of 1st metatarsal.
- 3) ball of little toe - head of 5th metatarsal.

When heel touches, it hits (2) + (3), we push off from ball of great toe.

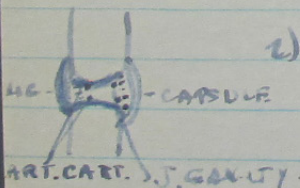
1st metat. very strong, muscles too.
Springs of foot - arches.

- 1) longitudinal arch on medial side.
- 2) transverse arch, deeper on medial side.

Supports 1) best one - muscles & their tendons.
 - some right in foot.
 - some long tendons from leg.
 2) ligaments holding bones in position.
 3) shape of the bones.

Joints - (articulations) - connections between bones. 3 classes.

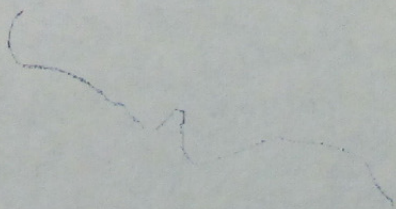
- 1) immovable (ex) skull. bones locked (suture).
- 2) slightly movable - bound together by fibrous tissue.
 - between vertebral bodies & symphysis of pubis.
 - bones held together by fibrous tissue.
- 3) freely moving - majority.
 + rubbing surfaces fit & are covered with smooth cartilage.



- 2) bones held together by a fibrous collar called capsule.
 Capsule thickened in places & called ligaments.
 Ligaments lined with synovial membrane.
 Space - joint cavity.

IMPRINT OF FEET.

P. HAMILTON



Plantar View - Left Foot



LEFT FOOT.

LONGITUDINAL ARCH.

A little weak, allowing slight pronation.

TRANSVERSE ARCH.

A little weak.

FAULTS

1) 3rd, 4th + 5th toes inclined to "hammer-toe" formation.

2) Slight "heel hump".

No corns or bunions.

RIGHT FOOT

LONGITUDINAL ARCH.

Good.

TRANSVERSE ARCH

A little spread.

FAULTS.

1) 3rd, 4th + 5th toe inclined
to "hammer-toe" position.

2) Slight "heel hump"

No corns or bunions.



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